United States Court of Appeals

for the

Federal Circuit

APPLE INC., a California corporation,

Plaintiff-Cross-Appellant,

v.

SAMSUNG ELECTRONICS CO., LTD., a Korean corporation,
SAMSUNG ELECTRONICS AMERICA, INC., a New York corporation,
SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,
a Delaware limited liability company,

Defendants-Appellants.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF CALIFORNIA IN CASE NO. 5:12-CV-00630-LHK,
LUCY H. KOH, UNITED STATES DISTRICT JUDGE

CORRECTED NON-CONFIDENTIAL BRIEF
FOR DEFENDANTS-APPELLANTS

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March 4, 2015

CERTIFICATE OF INTEREST

Counsel for Defendants-Appellants certifies the following:

1.   The full name of every party or amicus represented by me is:

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.

Effective January 1, 2015, Samsung Telecommunications America, LLC ("STA") merged with and into Samsung Electronics America, Inc., and therefore STA no longer exists as a separate corporate entity.

2.   The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

N/A

3.   All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

Samsung Electronics America, Inc. ("SEA") is a wholly-owned subsidiary of Samsung Electronics Co., Ltd. ("SEC"), a publicly held corporation organized under the laws of the Republic of Korea. SEC is not owned by any parent corporation and no other publicly held corporation owns 10% or more of its stock. No other publicly held corporation owns 10% or more of SEA's stock.

4.   The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or are expected to appear in this court are:

Quinn Emanuel Urquhart & Sullivan, LLP: Deepa Acharya; William B. Adams; Anthony P. Alden; Carl G. Anderson; Alexander D. Baxter; Katherine B. Bearman; Robert J. Becher; Rebecca A. Bers; Kara M. Borden; Todd M. Briggs; Amy H. Candido; Brian C. Cannon; Kenneth R. Chiate; David M. Cooper; Lindsay Cooper; Clark Craddock; Patrick D. Curran; Jacob K. Danzinger; Edward J. DeFranco; Samuel M. Drezdzon; Marissa R. Ducca; David Elsberg; Eric J. Emanuel; Richard W. Erwine; Susan R. Estrich; Michael L. Fazio; Anastasia M. Fernands; Scott A. Florance; Ryan S. Goldstein; John S. Gordon; Ron Hagiz; Nathan A. Hamstra; Jordan R. Jaffe; Joshua P. Jaffe; Kevin P.B. Johnson; James D. Judah; Robert N. Kang; Rachel M. Kassabian; Scott B. Kidman; Peter A. Klivans; Valerie A. Lozano; Kristin J. Madigan; Victoria F. Maroulis; John T. McKee; Joseph Milowic; David A. Nelson; Jared W. Newton; Sean S. Pak; Daniel C. Posner; Christopher E. Price; Maxim Price; William C. Price; B. Dylan Proctor; John B. Quinn; Carlos A. Rodriguez; Shahin Rezvani; Patrick M. Shields; Elliot J. Siegel; Kevin A. Smith; Robert W. Stone; Kathleen M. Sullivan; Stephen A. Swedlow; Derek J. Tang; Amardeep L. Thakur; Bill Trac; Charles K. Verhoeven;

Matthew S. Warren; Scott L. Watson; Cleland B. Welton II; Alan L. Whitehurst; Lance L. Yang; Michael T. Zeller

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CONFIDENTIAL MATERIAL OMITTED

The materials omitted from pages 56, 62, 63, and 64 of this brief describe Apple's confidential licensing information.   The materials omitted from pages A27-29, A33-34, and A38 of the Addendum describe confidential information regarding Samsung's sales and profits. The materials omitted from page A113 of the Addendum contain confidential information regarding the parties' reasonable-royalty calculations.   The materials omitted from pages A136.3-36.5 of the Addendum contain confidential information relating to Apple's calculation of alleged lost profits.   The materials omitted from pages A168-70 and A173-75 of the Addendum describe confidential technical information.

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<u>Statutes and Rules</u>

<u>STATEMENT OF RELATED CASES</u>

Defendants-Appellants identify the following appeals as related:

Apple Inc. v. Samsung Elecs. Co., No. 2014-1802 (pending).

Apple Inc. v. Samsung Elecs. Co., No. 2012-1507, 695 F.3d 1370 (Fed. Cir.

2012) (Prost, J., joined by Moore & Reyna, JJ.).

PRELIMINARY STATEMENT

This is an appeal from a judgment after jury trial in the District Court for the District of Northern California (Koh, J.) awarding Apple $119,625,000 in damages, plus supplemental damages and ongoing royalties, for infringement of three patents. That judgment should be reversed, for Apple failed to prove infringement of any valid patent.

As to the '647 patent, which covers "quick links" and which accounts for the overwhelming majority of damages ($98,690,625), Apple presented its case based on claim constructions for two limitations that this Court expressly rejected in another case, *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1304-07 (Fed. Cir. 2014). Under this Court's authoritative claim construction, no reasonable jury could find infringement, and the district court erred in denying judgment as a matter of law ("JMOL") on this ground.

The district court likewise erred in denying JMOL that the asserted claims of Apple's '721 and '172 patents are invalid as obvious, and thus in leaving intact the $2,990,625 in damages awarded for infringement of the '721 patent and the $17,943,750 in damages awarded for infringement of the '172 patent. The "slide to unlock" software feature of the '721 patent was well known in the prior art of touchscreen devices. Likewise, the "autocorrect" feature of the '172 patent was in use and obvious well before Apple filed its patent.

The jury found no infringement of Apple's '959 or '414 patents, but the district court erred nonetheless in denying JMOL that claim 25 of the '959 patent is invalid as indefinite and anticipated and that claim 20 of the '414 patent is invalid as anticipated.

With respect to the '239 patent asserted by Samsung, the district court made claim construction errors prejudicial to Samsung at trial. A new trial should be ordered on this patent.

JURISDICTIONAL STATEMENT

The district court had jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338. For the reasons stated *infra* Part III.A, the district court did not have jurisdiction to address ongoing royalties. This Court has jurisdiction over Samsung's appeal of the district court's November 25, 2014 final judgment pursuant to 28 U.S.C. § 1295(a)(1). Samsung filed a timely notice of appeal on November 25, 2014. A41151-52.

STATEMENT OF THE ISSUES

1.   Whether the district court erred in denying JMOL that Apple's '647 patent was not infringed under the proper construction of (a) the "analyzer server" limitation and (b) the "linking actions" limitation.

2.   Whether the district court erred in denying JMOL that (a) claim 8 of Apple's '721 patent is invalid as obvious; (b) claim 18 of Apple's '172 patent is

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not infringed and invalid as obvious; (c) claim 25 of Apple's '959 patent is invalid

as indefinite and anticipated; and (d) claim 20 of Apple's '414 patent is invalid as

anticipated.

3.   Whether the district court erred in granting Apple's motion for

ongoing royalties where (a) Apple's interlocutory appeal of the denial of

permanent injunction divested the court of jurisdiction; (b) Apple waived any

request for ongoing royalties; and (c) the royalty rate was set without consideration

of a comparable Apple license.

4.   Whether the district court erred in its claim construction of Samsung's

'239 patent.

5.   Whether, if this Court orders a new trial on Apple's patents, it should

correct the district court's erroneous evidentiary rulings (a) admitting evidence

regarding Apple's conjoint survey; (b) excluding evidence regarding Apple's

comparable license and valuation of the patents-in-suit; and (c) admitting evidence

of lost profits for a "blackout" period for the '647 patent.

STATEMENT OF THE CASE

A.   The Patents At Issue

1.   Apple's '647 Patent ("Quick Links")

Asserted claim 9 of U.S. Patent No. 5,946,647 ("'647 patent") is directed to

a software program that receives data from separate "client" applications, detects

"structures" in that data (like phone numbers and street addresses in an email

message), links "actions" to those structures, provides a pop-up menu allowing a user to select a linked action (like dial or add-to-contacts), and then executes the selected action on the detected structure. Because detecting structures and linking actions were known in the art, the claimed program is limited to a specific software architecture with three distinct software routines: (1) an "analyzer server," for detecting and linking structures; (2) a "user interface" to handle user selections; and (3) an "action processor" that performs the selected action on the detected structure. A597.

At trial, Apple asserted claim 9, which is dependent upon claim 1. Claim 1 provides:

> 1. A computer-based system for detecting structures in data and performing actions on detected structures, comprising:
>
> an input device for receiving data;
>
> an output device for presenting the data;
>
> a memory storing information including program routines including
>
> an **analyzer server** for detecting structures in the data, and for **linking actions to the detected structures**;
>
> a user interface enabling the selection of a detected structure and a linked action; and
>
> an action processor for performing the selected action linked to the selected structure; and
>
> a processing unit coupled to the input device, the output device, and the memory for controlling the execution of the program routines.

A597 (construed terms emphasized). Claim 9 states:

9. The system recited in claim 1, wherein the user interface enables selection of an action by causing the output device to display a pop-up menu of the linked actions.

Id.

In a prior case in which Apple asserted the '647 patent against Motorola, the District Court for the Northern District of Illinois construed "analyzer server" as "a server routine *separate from* a client *that receives data having structures from the client*"; and construed "linking actions to the detected structures" as "creating a *specified connection* between each detected structure and at least one computer subroutine that causes the CPU to perform a sequence of operations on that detected structure." *Apple Inc. v. Motorola, Inc.*, No. 11-cv-08540, slip op. at 8-11 (N.D. Ill. Mar. 19, 2012) (Posner, J., sitting by designation) (emphases added). Samsung notified the district court below of those claim constructions and urged the district court to apply them.[1] But the district court commenced trial on March 31, 2014, without providing any construction of "analyzer server" or "linking actions." On April 25, 2014, this Court affirmed in *Motorola*, expressly adopting the Northern District of Illinois' constructions of the terms "analyzer server" and "linking actions" in the '647 patent. *Motorola*, 757 F.3d at 1304-07. The district court allowed the parties to present additional testimony on the last day of trial to

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[1]   A3015-16 (April 23, 2012 preliminary injunction briefing); A40059:25-A40060:4 (February 14, 2013 technology tutorial); A40542-47 (December 12, 2013 hearing); A40853-54 (March 13, 2014 Joint Pre-Trial Statement); A40867 (March 28, 2014 denial of request for inclusion in jury notebook).

address the infringement and invalidity allegations under this Court's constructions. A13027:16-24.

2. Apple's '721 Patent ("Slide To Unlock")

U.S. Patent No. 8,046,721 ("'721 patent") is directed to a device with a touch-sensitive display that may be unlocked using pre-defined gestures and instructions. Asserted claim 8 is dependent on claim 7, which provides:

> 7. A portable electronic device, comprising:
>
> a touch-sensitive display;
>
> memory;
>
> one or more processors; and
>
> one or more modules … including instructions:
>
> to detect a contact with the touch-sensitive display at a first predefined location corresponding to *an unlock image*; to continuously move *the unlock image* on the touch-sensitive display … ; and
>
> to unlock the hand-held electronic device if the unlock image is moved from the first predefined location on the touch screen to a predefined unlock region on the touch-sensitive display.

A685 (emphases added). Claim 8 is directed to:

> 8. The device of claim 7, further comprising instructions to display visual cues to communicate a direction of movement of *the unlock image* required to unlock the device.

Id. (emphasis added).

3.   Apple's '172 Patent ("Text Correction")

U.S. Patent No. 8,074,172 ("'172 patent") is directed to a particular form of providing word recommendations for text correction. Asserted claim 18 requires "[a] graphical user interface on a portable electronic device with ***a keyboard and a touch screen display***." A707-08 (emphasis added). The district court construed the preamble limitation "a keyboard and a touchscreen display" to encompass both physical and virtual keyboards. A161-64. Based on that construction, the court granted summary judgment of infringement of the '172 patent. A164.

4.   Apple's '959 Patent ("Unified Search")

U.S. Patent No. 6,847,959 ("'959 patent") is directed to a computer system for locating information both on the Internet and locally with a single search, by using a "plurality of heuristics." Asserted claim 25 requires instructions to provide an "information identifier to a plurality of heuristics to locate information in the plurality of locations which include the Internet and local storage media." A607.

5.   Apple's '414 Patent ("Sync")

U.S. Patent No. 7,761,414 ("'414 patent") is directed to particular methods and systems for synchronizing data between multiple devices. Asserted claim 20 requires at least three distinct "synchronization software components" that are "configured to synchronize." A655.

6.   Samsung's '239 Patent

U.S. Patent No. 5,579,239 ("'239 patent") is directed to a system for video compression and transmission. Asserted claim 15 provides:

15. An apparatus for transmission of data, comprising:

a computer including a video capture module to capture and compress video in real time;

means for transmission of said captured video over a cellular frequency.

A720. The district court rejected Samsung's proposed construction of the "means for transmission" as "one or more modems connected to one or more cellular telephones or cellular radio transmitters," and instead construed it as "one or more modems connected to one or more cellular telephones, *and software* performing a software sequence of initializing one or more communications ports on said apparatus, obtaining a cellular connection, obtaining said captured video, and transmitting said captured video." A150 (emphasis added).

B.   The Jury Verdict

On May 5, 2014, the jury returned a verdict finding infringement of Apple's '647 and '721 patents. A40869; A40872. The jury found no infringement of Apple's '959 and '414 patents. A40870-71. The jury also found that Samsung's infringement of the '721 patent was willful. A40874. The jury found all of Apple's patents valid. *Id.* The jury awarded Apple $119.6 million (A40875); on a per-patent basis, that award reflected $98,690,625 for infringement of the '647

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patent by nine Samsung products, $2,990,625 for infringement of the '721 patent by three Samsung products, and $17,943,750 for infringement of the '172 patent by seven Samsung products (A27-28; A40876).

As to the Samsung patents, the jury found that Apple infringed U.S. Patent No. 6,226,449 ("'449 patent") but did not infringe the '239 patent and awarded Samsung $158,400. A40878-79.

C.   The District Court's Orders On Post-Trial Motions

On August 27, 2014, the district court denied Apple's motion for permanent injunction. A41023-64. Apple filed an interlocutory appeal from that ruling, which is pending before this Court. *Apple Inc. v. Samsung Elecs. Co.*, No. 2014-1802.

On September 9, 2014, the district court denied Samsung's renewed motion for JMOL (A39-91) except insofar as it granted Samsung's motion for judgment that it did not willfully infringe the '721 patent, holding that there was no objective willfulness because "Samsung's invalidity defense was not objectively baseless" (A66). In addition, the court granted Apple supplemental damages for infringing sales through the date of judgment. A113.

On November 25, 2014, the district court awarded ongoing royalties to Apple for any ongoing infringement. A3-38. On the same day, the district court entered final judgment. A1-2.

SUMMARY OF ARGUMENT

The judgment should be reversed or vacated on several independent grounds.

1. The judgment of infringement of Apple's '647 patent should be reversed because Apple failed to produce evidence showing infringement of the '647 patent under this Court's authoritative constructions in *Motorola* of the "analyzer server" and "linking actions" limitations in that patent.

First, as to "analyzer server," there is no evidence that the accused code functions as a "server routine" that is "separate from a client" or "receives data having structures from a client." Rather, the undisputed evidence established that the accused code is part of the application when the claimed "detecting" and "linking" functions are performed. The district court erred in finding the separateness requirement satisfied by the fact that the code came from "shared libraries," for the uncontested evidence shows that the accused library code is just like any other code *within* the application itself, and thus is no more a "separate server" than is any other software in the application. By treating such an ordinary program routine as a server separate from a client, the district court rendered the "separate server" requirement meaningless, in disregard of *Motorola*.

Second, Apple produced no evidence to show a "specified connection" between a detected structure and a selected action. The district court found the

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specified-connection requirement satisfied because the system "necessarily" calls a method called "startActivity()" when the user makes a selection of an action to be performed, but that was error. As Apple's own expert conceded, startActivity() is merely a generic first step that begins the process of identifying possible applications to perform the action. If the activation of any code—whether or not it is linked to a particular application—were sufficient to constitute a "specified connection," then that requirement would be rendered meaningless.

2. Samsung is entitled to JMOL as to Apple's '721, '172, '959, and '414 patents.

First, Samsung is entitled to judgment that claim 8 of the '721 patent is invalid as obvious because the prior art disclosed all of the limitations in claim 8. The district court held that, because the prior art was ambivalent about the use of "sliders" (rather than other toggles) to unlock, the jury could have found that the prior art teaches away from sliders. But the prior art expressly "encourag[ed]" the use of sliders, and this Court has rejected the idea that ambivalence suffices to constitute teaching away.

Second, Samsung is entitled to judgment of non-infringement of the '172 patent because the district court erroneously construed the limitation "a keyboard and a touchscreen display" to encompass both physical and virtual keyboards. Since the "keyboard" and "display" are recited as separate elements, the plain

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language requires a separate keyboard and display, not a keyboard that is part of the display. In any event, claim 18 of the '172 patent is invalid as obvious because the prior art in combination disclosed every limitation of claim 18.

Third, Samsung is entitled to judgment that claim 25 of the '959 patent is invalid. Claim 25 is invalid as indefinite because the claim relies upon "heuristics" to conduct searches for information without any specification of what those "heuristics" are. The district court's use of a "rule of thumb" in construing heuristics and Apple's expert's definition of heuristics as "good ideas" are both far too vague and subjective to satisfy the requirements of *Nautilus, Inc. v. Biosig Instruments, Inc.*, ___ U.S. ___, 134 S. Ct. 2120 (2014). Claim 25 is also invalid as anticipated by prior art, which met every claim limitation.

Fourth, Samsung is entitled to judgment that claim 20 of the '414 patent is invalid as anticipated. The undisputed evidence established that Windows Mobile 5 ("WM5") anticipated claim 20. The district court's ruling to the contrary relied solely on one sentence of testimony from Apple's expert that was irrelevant to the component of WM5 that Samsung relied upon to show anticipation.

3. This Court should vacate the district court's ruling awarding ongoing royalties. The district court lacked jurisdiction over ongoing royalties because it addressed the issue after Apple appealed the denial of a permanent injunction, passing jurisdiction over equitable relief to this Court. In any event, Apple waived

ongoing royalties by failing to request that relief at trial or at any other point prior to its injunction appeal. Even if an ongoing royalty were proper, the district court erred in setting the rate because it failed to consider Apple's comparable license to HTC.

    4. Samsung is entitled to a new trial on its '239 patent because asserted claim 15 is a means-plus-function claim, and the district court erroneously construed the claim to require software structure not included in the specification and not necessary to perform the stated function. The district court also erred in excluding "cellular radio transmitters" for performing the transmission function. The specification discloses radio transmitters and transmission over cellular frequencies, which necessarily include cellular radio transmitters.

    5. Samsung does not seek any new trial on Apple's patents, but should any such new trial be ordered, this Court should correct three evidentiary rulings. *First*, the conjoint survey evidence presented by Apple's expert witness Dr. John Hauser should be excluded as unreliable, as should testimony by Apple's damages expert Dr. Christopher Vellturo insofar as it relies on that survey. The survey fails to consider significant factors that affect real-world market share and consumer decisions, such as brand, battery life, operating system, and promotion and is inconsistent with real-world evidence of consumers' buying decisions. *Second*, Samsung should be able to introduce Apple's comparable licenses and previous

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valuation of their patents, which showed that Apple's proposed royalty rates below were grossly inflated. *Third*, the district court erred in admitting evidence of lost profits for a "blackout" period for the '647 patent, in conflict with *Grain Processing Corp. v. American Maize Prods. Co.*, 185 F.3d 1341, 1348 (Fed. Cir. 1999).

STANDARDS OF REVIEW

The district court's ruling on Samsung's motion for JMOL is reviewed de novo, and should be reversed "if the jury's factual findings are not supported by substantial evidence or if the legal conclusions implied from the jury's verdict cannot in law be supported by those findings." *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1336 (Fed. Cir. 2003) (quoting *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc)).

The district court's grant of summary judgment is reviewed de novo, and should be upheld only if, crediting all of the nonmovant's evidence and drawing all justifiable inferences in its favor, "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." *Brilliant Instruments, Inc. v. GuideTech, LLC*, 707 F.3d 1342, 1344 (Fed. Cir. 2013) (citation omitted).

Obviousness is a question of law reviewed de novo with the jury's underlying fact determinations reviewed for substantial evidence. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1334 (Fed. Cir. 2013).

The jury's determination of anticipation is reviewed for substantial evidence. *Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1323 (Fed. Cir. 2014).

Whether a patent is invalid for indefiniteness is reviewed de novo. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1260 (Fed. Cir. 2014).

The district court's claim constructions relied only on intrinsic evidence (*see* A201-264; A137-150), and are therefore reviewed de novo. *See Teva Pharm. U.S.A., Inc. v. Sandoz, Inc.*, ___ U.S. ___, 135 S. Ct. 831, 840-42 (2015).

The district court's award of ongoing royalties is reviewed for abuse of discretion. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 35 (Fed. Cir. 2012). "A district court abuses its discretion when it makes a clear error of judgment in weighing relevant factors or exercises its discretion based upon an error of law or clearly erroneous factual findings." *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 770 (Fed. Cir. 2014) (brackets and internal quotation marks omitted). A district court's assertion of jurisdiction is a legal matter, which is reviewed de novo. *See, e.g.*, *Rick's Mushroom Serv., Inc. v. United States*, 521 F.3d 1338, 1342 (Fed. Cir. 2008).

ARGUMENT

I.   THE DISTRICT COURT ERRED IN DENYING SAMSUNG'S MOTION FOR JMOL AS TO APPLE'S '647 PATENT

Infringement requires proof that each and every claim limitation is found in the accused device. *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed. Cir. 1995) ("[E]very limitation set forth in a claim must be found in an accused product, exactly."). Under this Court's authoritative constructions of the terms "analyzer server" and "linking actions" in claim 9, no reasonable jury could find that the accused products infringe Apple's '647 patent. Samsung is thus entitled to reversal of the $98,690,625 in damages awarded on that patent and entry of judgment in its favor.

A.   Under This Court's Claim Construction, No Reasonable Jury Could Find That The Accused Products Include An "Analyzer Server"

This Court's Claim Construction in Motorola. In *Motorola*, this Court affirmed the district court's construction of "analyzer server" as "a server routine separate from a client that receives data having structures from the client." 757 F.3d at 1304. Apple had argued in that case (as here) that "the analyzer server need not be 'separate from a client'" and instead "should be construed as 'a program routine(s) that receives data, uses patterns to detect structures in the data, and links actions to the detected structures.'" *Id.* This Court expressly rejected Apple's proposed construction, finding that it "contradicts the claim language

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because it reads 'analyzer server' out of the claim." *Id*. at 1305. Rather, "the plain meaning of 'server,' when viewed from the perspective of a person of ordinary skill in the art, entails a client-server relationship," and "[c]onsistent with this perspective, the specification discloses an analyzer server that is separate from the application it serves." *Id.* at 1304. In particular, the patent specification depicts "program 165" as ***separate*** from "application 167":
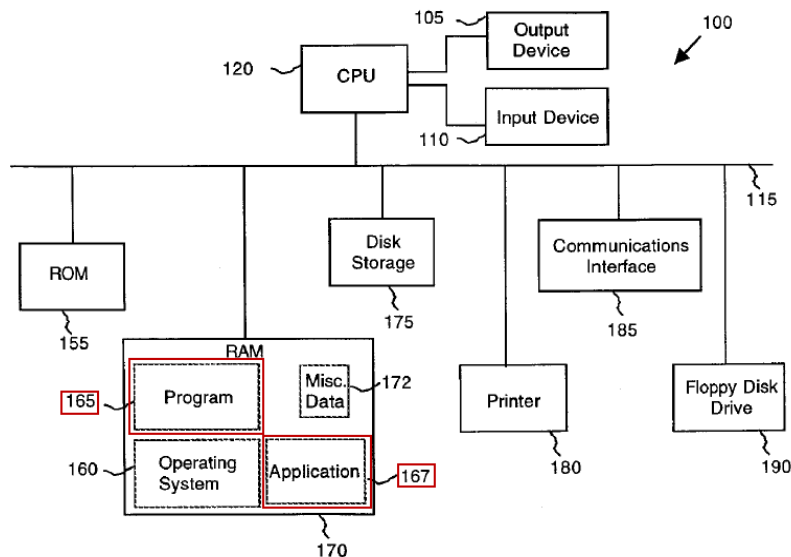
Id. Thus, the "specification describes the analyzer server and the application, which it serves, as separate structures," in which the application sends data to the analyzer server to be "analyzed." *Id.*

The Unrebutted Evidence At Trial. Apple accused two applications on the Samsung devices of infringing claim 9: the Browser application (web browser) and the Messenger application (text messaging). Those applications perform certain functions described in the patent (and well known in the art), such as

detecting structures and allowing users to select actions to be performed on them. But they do not use the software architecture of claim 9, as construed by this Court in *Motorola*.

Instead, the uncontested evidence at trial showed that the Browser and Messenger applications each contain their own routines *within the application* for analyzing the data (*i.e.*, performing the detecting and linking functions) and do not rely on a separate server, as claimed by the '647 patent. For Browser, this code is referred to as Cachebuilder or, in later versions, ContentDetectors; for Messenger, this code is referred to as Linkify. A11591:14-18 (Hackborn); A13092:17-13093:22 (Jeffay).

The accused code—Cachebuilder, ContentDetectors, and Linkify—all originate in "shared libraries" in the Android operating system. A10897:25-10898:5 (Mowry). As Google's engineer explained, the code is stored in a library so that multiple applications have access to it and can copy it into the application when the relevant functionality is needed. A11591:2-11592:10 (Hackborn). This is more efficient than each application always maintaining such code, even when not needed, which would create unnecessary overhead. A11591:17-11592:2 (Hackborn). Unlike a server, a shared library never *receives* data from client applications for analysis (e.g., "detecting" and "linking"). A13095:1-13096:5 (Jeffay). Rather, applications merely copy code from a library for later use.

A11792:4-18 (Jeffay).   Thus, Android's shared libraries are a *programming* tool that has no bearing on whether a client-server *architecture* exists.

When an application such as Browser or Messenger needs the code, it will copy it from the library and it will run as part of the application.   A13092:17-13093:7 (Jeffay) (accused code is not separate from the clients because it "becomes part of the application").   In fact, Dianne Hackborn, the Google engineer who helped to design and implement Linkify, testified that "Linkify does not run on its own. It runs as part of the application that's using it." A11591:14-18. Ms. Hackborn explained specifically that Linkify "is not a server" because there is "no sharing it does of data between applications" and "it would be a waste to have the overhead of putting it as a separate server." A11591:19-11592:2.

Based on this evidence, no reasonable jury could conclude that Cachebuilder, ContentDetectors, and Linkify function as server routines that are "**separate from**" the Browser and Messenger applications, as required by the claim, for each is simply part of the client application itself. And Apple offered no evidence showing that the code in question is separate from the accused applications when the detecting and linking functions are performed, or that it ever receives data from the accused client applications.

Apple's Reliance On An Incorrect Claim Construction At Trial. Because the district court did not provide the jury with the proper construction of "analyzer

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server" until after all of the '647 witnesses had testified, Apple tried its entire case based on the incorrect premise that "analyzer server" should be construed broadly as "program routine(s) that receives data, uses patterns to detect structures in the data, and links actions to the detected structures"—the very claim construction rejected by this Court in *Motorola*, 757 F.3d at 1304. Accordingly, Apple sought to prove that the "analyzer server" element was met simply because the functions of "detecting" and "linking" were present—a position irreconcilable with this Court's claim construction of "analyzer server" requiring a separate server. Apple's expert Todd Mowry testified that Linkify could be an "analyzer server" simply because "it's software, and the software detects structures in the data and links actions to the detected structures." A12800:22-24; *see also* A10896:14-16 ("[T]he definition of analyzer server is … [i]t's a piece of software that performs these functions."); A10853:11-10855:3; A41153. On cross-examination, Dr. Mowry insisted that *any* device that has the *functions* of detecting and linking is necessarily an "analyzer server." A10920:10-19.

Apple's Evidence On The Last Day Of Trial. In the additional testimony allowed by the district court after issuance of this Court's *Motorola* ruling (*see* A13029:4-13045:5), Apple submitted no new factual testimony or additional evidence, and Apple's expert stated that his analysis had not changed, despite having provided his opinion under the construction rejected by this Court

(A13029:12-20 (Mowry)). Rather, Apple's expert simply asserted that the fact that Linkify and Cachebuilder/ContentDetectors are written as "shared libraries" qualifies them as a "server" that operates "separate" from a client application. A13030:1-13038:25 (Mowry).

Apple, however, did not provide any evidence of a library operating as a server separate from a set of client applications that can access it. Nor could it, for a shared library and a server are distinct concepts in computer science. As Samsung's expert Dr. Jeffay explained, "libraries are bits of code that exist so that all programmers can use them. … [T]he idea is so that you don't have to reinvent the wheel every time. You go to the library, you take code out of the library, you integrate it in your application, and at that point the library code is no different than any other code in the application." A11792:4-18; *see also* A11794:8-16; A13092:17-13093:1; A13099:4-23.   Simply put, library code is "in the application" and is "just like every other piece of code [that] is in there." A11792:19-11793:2. "When an application, like Messenger, uses Linkify, it gets [its] own copy of Linkify. … It's the same for both Content Detectors and Cache Builder." A13094:9-25. Thus, the shared libraries Apple accused never ***receive*** data from a client application, as expressly required by the proper "analyzer server" claim construction. Instead, each client application simply copies the code it needs from the library, integrating that code into the application itself to later

provide the needed functionality; nothing is sent to the library for analysis. A11591:14-11592:2 (Hackborn); A11791:23-11794:7; A13091:19-13095:15; A13096:6-13097:5. The claimed "analyzer server," on the other hand, is separate from client applications and must *receive* data from each client application in order to separately analyze it.

Apple's infringement allegations themselves recognize that Cachebuilder/ContentDetectors and Linkify are part of the applications, for they do not accuse a single, separate set of routines of detecting and linking for both Messenger and Browser, but rather accuse two different sets of routines (*i.e.*, Cachebuilder/ContentDetectors for Browser and Linkify for Messenger), both of which run as part of one application, but not the other. In fact, Apple's expert Dr. Mowry expressly acknowledged that the code he relies upon is "code in the client"/"code from the client." A13033:8-11; A13033:19-21; A13034:16-19. Because the code is part of the client applications, it is not "separate" from them, as required by this Court's construction. Indeed, the idea that there is a "client-server relationship," *Motorola*, 757 F.3d at 1304, makes no sense where the code in question is all part of the same application.

The District Court's JMOL Decision. In its decision denying JMOL of non-infringement of the '647 patent, the district court relied solely upon Apple's evidence from the last day of trial. A44-47. With respect to the "analyzer server"

limitation, the district court held that the jury could have credited Dr. Mowry's

assertion that the shared libraries "receive data from the Messenger and Browser

applications and detect structures in that data." A47. But the district court cited

only conclusory statements by Dr. Mowry to support this position (A46-47), which

is not surprising considering such shared libraries do not work this way. Apple

was required to offer more than an expert's conclusory statement—a statement that

conflicts with basic principles of computer science—to support infringement.[2]

Indeed, the cited testimony from Dr. Mowry does not say that "shared

libraries receive data," but rather that "the routines" receive data. A13032:1-21;

see also A13034:11-13035:11. Apple should not be permitted to treat the accused

code as a shared library for purposes of satisfying the separate-server requirement,

while treating the accused code as code in the application itself for purposes of

satisfying the receiving-data requirement. Such inconsistent characterizations of

"analyzer server" conflict with this Court's construction.

Similarly, the district court's suggestion that the jury could reasonably have

found that shared libraries are separate from the applications that use them (A47) is

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[2]   *See, e.g.*, *Arthur A. Collins, Inc. v. N. Telecom Ltd.*, 216 F.3d 1042, 1046
(Fed. Cir. 2000) ("[I]t is well settled that an expert's unsupported conclusion on the
ultimate issue of infringement is insufficient to raise a genuine issue of material
fact."); *see also Phillips Petroleum Co. v. Huntsman Polymers Corp.*, 157 F.3d
866, 876 (Fed. Cir. 1998); *Mformation Techs., Inc. v. Research in Motion Ltd.*,
2012 WL 3222237, at *2 (N.D. Cal. Aug. 8, 2012), *aff'd*, 764 F.3d 1392 (Fed. Cir.
2014).

irrelevant because that separation exists only before the code is copied into the application, and thus before the code supposedly becomes the "analyzer server" that receives data from the client and performs the relevant functions of detecting and linking. Simply put, the fact that the accused code came *from* a shared library does not change the undisputed fact that it *is* part of the application when it performs the relevant functions of an "analyzer server."

The accused code is therefore no more "separate" and no more a "server" than is any other program routine. The district court did not cite *any* testimony for the proposition that, separate or not, the code from a shared library is a "server." As the unrebutted evidence from Google's engineer made clear, using shared libraries (a programming tool) is fundamentally different from using a separate server (a form of software architecture). *See supra* at 18-19. And by treating such an ordinary program routine as a server separate from a client, the district court disregarded this Court's holding in *Motorola*, which expressly rejected defining "analyzer server" simply as a program routine that receives data. *See Motorola*, 757 F.3d at 1304-05. Accordingly, the district court's analysis would "read[] 'analyzer server' out of the claim," precisely the improper result that this Court rejected in *Motorola*. *Id.* at 1305.

Finally, the district court also erred in relying (A47) on Dr. Mowry's testimony, on the last day of trial, that the code he previously identified as

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performing "linking" was actually so-called "glue code" that "connects together different modules or different pieces of software" (A13033:22-13034:10), and thus does not violate the requirement that the code be "separate from a client." A13033:8-11; A13033:19-21; A13034:16-19; A13060:9-13. Dr. Mowry's belated characterization of the code cannot change the fact that it is ***not separate from the application*** as required by the claim. Whether called "glue code" or not, Dr. Mowry admitted that the "linking" code for the analyzer server was part of the client itself (A13033:8-11; A13033:19-21; A13034:16-19) (stating that this is "code in the client" / "code from the client"), and it therefore cannot function as a separate server.

Because the record contains no substantial evidence of a separate "analyzer server" as required by this Court's construction in *Motorola*, Samsung is entitled to JMOL on the '647 patent.

B. Under This Court's Claim Construction, No Reasonable Jury Could Find That The Accused Products "Link[] Actions" With A "Specified Connection"

The district court also erred by not granting JMOL of non-infringement of the '647 patent based on the phrase "linking actions to the detected structures." As with the term "analyzer server," Apple relied largely upon a claim construction that this Court rejected in *Motorola*, and failed to produce any evidence on the last day of trial to demonstrate that the correct claim construction was satisfied.

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This Court's Claim Construction. In *Motorola*, the district court construed the claim phrase "linking actions to the detected structures" to mean "creating ***a specified connection*** between each detected structure and at least one computer subroutine that causes the CPU to perform a sequence of operations on that detected structure." *Motorola*, 757 F.3d at 1304 (emphasis added). This Court affirmed that construction, expressly rejecting Apple's contention that "linking" means merely "***associating*** detected structures to computer subroutines that cause the CPU to perform a sequence of operations on the particular structure to which they are associated." *Id*. at 1306 (emphasis added). As this Court explained, the "plain meaning of associating relates to a mere commonality, while linking infers a joining." *Id*. This Court further held that "linking is more than just associating," noting that "[t]he patent consistently differentiates between associating and linking and implies that linking is ***a more specific connection than merely associating***." *Id*. (emphasis added).

The Unrebutted Evidence At Trial. The record here contains no evidence of any specified connection between detected structures and actions. In the accused applications, Android creates a pop-up menu that is displayed when the user selects a detected structure via a touchscreen. A10850:21-10851:5; A10865:1-7; A10869:21-10870:6 (Mowry).

A41155, A41156, A41157.   If a user selects an option from the pop-up menu,

Android creates what is known as an "Intent."   A10857:16-A10859:10 (Mowry).

According to Apple, Intents are part of the "specified connection" between the

structure and the action. A13039:25-13040:23; A13041:5-16 (Mowry).

Unrebutted evidence, however, established that Intents do not create a

specified connection but, at most, *an association*, and in fact, Intents were

purposefully designed to avoid creating any specified connection. Google engineer

Ms. Hackborn, the creator of the Intent system, testified that Android was intended

to "have an open platform, and we wanted to allow third party applications to work

the same as built-in applications on Android, so Intents allowed us to work with

both third party and built-in applications the same way."   A11586:20-11587:6.

Intents do this by initiating a process that prompts Android to search for whatever applications (third-party or system-provided) are available to perform that action—thus allowing programmers to avoid specifying in advance that a particular system application will handle the task. A11586:7-11587:6; A11588:11-23 (Hackborn); A11802:2-23 (Jeffay). Moreover, Android provided this flexibility so that users can choose the application to perform the action if multiple applications are available.

Thus, in the accused applications, instead of *specifying* the application that will act on a structure after a user's pop-up menu selection, the accused application creates an Intent with a *generic* request (*e.g.*, "dial") that causes the system to identify one or more applications that can perform the request, and if multiple such applications exist, provide that choice to the user. As Ms. Hackborn explained, once the Intent is created, it is "give[n] … to Android and then Android will find an application that will actually do [what is requested]." A11586:7-13. Simply put, there is no "specified connection" because the connection can be made to *any* application that the system identifies and the user chooses, rather than to a specific application. Apple offered no evidence rebutting these accounts of the operation of Intents.

Apple's Reliance On An Incorrect Claim Construction At Trial. Prior to the last day of trial, Apple pressed its case that Intents were "links" based on the

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erroneous premise that mere "association" was enough for infringement—the very premise this Court expressly rejected in *Motorola*. For example, Apple's expert Dr. Mowry presented the '647 patent to the jury as "a new invention where if you had a system that could automatically find these things, like phone numbers, e-mail addresses and so on, and also automatically **associate** different choices and things you could do with them, which they call actions." A10831:16-20 (emphasis added). He also concluded that his analysis meant that the software "associates" the recognized text with the appropriate choices. A10865:16-19. Nowhere did Apple's expert testify that there is a "specified connection" between a detected structure and the code for performing a selected action.

Apple's Evidence On The Last Day Of Trial. After this Court issued its *Motorola* opinion, in the extra testimony allowed by the district court on the final trial day, Apple again offered no new factual evidence, but merely had its expert Dr. Mowry testify that, regardless of what he had said earlier about "associating," there was in fact a "specified connection." He pointed to a method called setIntent() that, when a structure is detected, "necessarily" calls another method called startActivity(), which will eventually determine the application to handle the action after the user has made a selection. A13040:6-23. But that is the same Intents system and startActivity() method that Dr. Mowry earlier stated merely "associated" an action with a structure, given that it was designed to allow a user to

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select applications to handle tasks without interfering with hard, "specified" code paths to an application.

The District Court's JMOL Decision.   In denying JMOL of non-infringement of the '647 patent based on the "linking actions" term, the district court again relied solely on Apple's post-*Motorola* testimony on the last day of trial.   A44-46.   The district court held that the jury might have credited Dr. Mowry's testimony that the creation of "an intent object for a particular choice in the pop-up menu" forms the "specified connection" because it "necessarily calls the startActivity() method and passes an Intent object."   A45.   But whether an action routine is "necessarily" called is irrelevant to the "linking actions" phrase as construed by this Court: the linked action must be part of a "specified connection." As this Court held, "linking infers a joining." *Motorola*, 757 F.3d at 1306.

Unrebutted evidence at trial showed that calling startActivity() is not a "joining," even if it "necessarily" occurs, and thus does not form a "specified connection" between a structure and the routines that will operate on them. As Dr. Jeffay explained:

> The user doesn't select Start Activity. The user selects [for example] dial, and at the time that the structures are detected and linked, there is no specified connection between that structure and the code that's ultimately going to dial. … It's to allow users to specify their own, for example, their favorite e-mail client so that when you detect an e-mail address, it's not bound to any particular e-mail client because it doesn't yet know which e-mail client the user wants to use.

> And this Intent mechanism figures this out on the fly. So at the time something is detected, what's linked is Start Activity, and Start Activity is ultimately not the action that the user wants to perform.

A13100:16-13101:4.   Apple did not produce any evidence to dispute that startActivity() simply starts the process of choosing an application, and that the Intent mechanism does not have a connection to any particular application or set of applications because it was designed to avoid such specificity.

To the contrary, Apple's own admissions support the conclusion that the district court erred in finding a "specified connection" based on calling startActivity(). Dr. Mowry conceded that Intents express "what you want to have happen when you launch another program" (A10858:3-7), and that startActivity() is just "the launcher that knows how to launch another program" (A10858:13-20).

Thus, because the undisputed evidence shows that startActivity() is simply the code that begins the process of searching for an unknown application, there is no "specified connection." Indeed, any time that a user chooses an action on a smartphone, some computer code will be activated. If that suffices to constitute a specified connection, then the term "specified connection" as construed by this Court in *Motorola* would be rendered meaningless.

The error in the district court's analysis is further demonstrated by the fact that no connection exists at the time the user selects an action. The plain language of claim 9 demonstrates that the "specified connection" must be in place ***before***

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selection of an action by the user because it requires "a user interface enabling the selection of a detected structure and a *linked* action." A597. This makes sense because a connection cannot be "specified" if it does not exist when the action is chosen. The undisputed evidence shows, however, that Android uses Intents to find an application *after* the user's selection of an action. A11802:3-11804:11; A11826:2-24 (Jeffay). Indeed, the Intent does not even exist until after the user selects the structure and the action the user wishes to perform. A12806:13-12807:16; A13033:1-21; A13034:12-19 (Mowry). In describing the subroutines in the Android code that he accused of being the linked actions to detected structures (A10857:9-10867:23), Apple's own expert Dr. Mowry conceded that Android "builds" Intents only *after* the user selects an option, without any such connection existing beforehand (A10857:9-10864:23; A12806:13-12807:16; A13033:1-13034:23).

The district court erred in disregarding the important timing sequence the claim requires for the supposed connection. The court held that, because the analyzer server is tasked with "creating" links, those links need not always exist: "under the *Motorola* construction, the analyzer server is for '*creating* a specified connection,' such that the claimed action need not always be 'linked' to a structure prior to detection of that structure." A45. But the point of the claim requirement is not that the link must always exist or exist "prior to detection" of a structure, but

that it must exist before the user selects the action. Otherwise, there is no "linked action" or "specified connection," and indeed, no such connection was demonstrated here.

Because the record contains no substantial evidence of a "specified connection" as required by this Court's claim construction in *Motorola*, Samsung is entitled to JMOL of non-infringement on the '647 patent.

II.   THE DISTRICT COURT ERRED IN DENYING SAMSUNG'S MOTION FOR JMOL AS TO APPLE'S '721, '172, '959 AND '414 PATENTS

A.   Samsung Is Entitled To JMOL As To The '721 Patent Because Claim 8 Is Invalid As Obvious

The district court erred in failing to grant JMOL that claim 8 of the '721 patent is invalid as obvious. "[T]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416-17 (2007). Claim 8 is a classic example of an obvious combination under *KSR*.

Claim 8 (dependent upon claim 7) covers "[a] portable electronic device" with module instructions "to unlock the hand-held electronic device if the unlock image is moved from the first predefined location on the touch screen to a predefined unlock region on the touch-sensitive display." A685. Samsung presented two pieces of prior art, the Neonode N1 Quickstart Guide (A20713-740) and a video and paper by Plaisant that were presented at the ACM CHI conference

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in 1992 (A20741, A20742-43). A11973:23-11984:1 (Greenberg). Together, the

prior art disclosed all of the limitations in claim 8 of the '721 patent.

The Neonode guide disclosed unlocking a portable, touch-screen phone with

a left-to-right sweep gesture. A11976:8-21 (Greenberg); A20741. In fact,

Neonode even has "Right sweep to unlock" appear on the screen of the device.

A20725. Thus, the only element of claim 8 missing from Neonode is the moving

image accompanying the sweep. A11976:22-11977:2 (Greenberg).

The Plaisant reference plainly disclosed this sliding image that could be

moved from one predefined location to another to change the state of the device.

A11978:15-11979:20 (Greenberg).

A20741. At trial, Apple did not show that claim 8 combines the elements of

Neonode and Plaisant in any unexpected or unpredictable way. A12875:2-

12877:16 (Cockburn). And Apple did not identify any element missing from *both*

Neonode and Plaisant.   Instead, Apple's sole argument against the

Neonode/Plaisant combination was that Plaisant "teaches away" from using the

sliding mechanism. A12874:21-12877:16 (Cockburn).

As a matter of law, there was no "teaching away" here. "A reference does

not teach away if it does not criticize, discredit, or otherwise discourage

investigation into the invention claimed." *Galderma Labs., LP v. Tolmar, Inc.*, 737

F.3d 731, 739 (Fed. Cir. 2013) (internal quotation marks and alterations omitted).

The record is clear that Plaisant did not "discourage," and in fact *encouraged*, the

use of sliders. Specifically, Plaisant taught that an "*advantage of the sliding*

movement is that it is less likely to be done inadvertently therefore making the toggle very secure." A20743 (emphasis added); A11980:12-11981:9 (Greenberg). Plaisant does state that "[t]he toggles that are pushed seemed to be preferred over the toggles that slide," but it made clear "[e]ven if sliders were not preferred, the fact that users used them correctly is *encouraging*." A20743 (emphasis added).

The district court erred in holding that Plaisant's ambivalence towards sliders created a "question of fact for the jury." A55-56. This Court has repeatedly held that such ambivalence does not constitute teaching away as a matter of law. For instance, *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952 (Fed. Cir. 2014), held that "[t]he district court … err[ed] by taking an overly cramped view of what the prior art teaches" because the prior art's "mere disclosure of alternative preferences does not teach a person of ordinary skill away." *Id.* at 963-64.[3] Indeed, the case for teaching away here is even weaker than in *Allergan* because, despite some ambivalence, Plaisant pointed out the important "*advantage*" of sliders directly relevant to the combination at issue. A20743 (emphasis added).[4] In short, there is

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[3] *See also, e.g.*, *Galderma Labs.*, 737 F.3d at 739; *In re Kubin*, 561 F.3d 1351, 1357 (Fed. Cir. 2009).

[4] The district court relied upon *Cheese Systems Inc. v. Tetra Pak Cheese & Powder Systems Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013), but there "[n]othing in" the prior art noted that the improvement stated in the patent at issue should be employed. *Id.* at 1352.

no plausible reading of Plaisant—which highlights the benefits of sliders—that renders the use of sliders nonobvious.

Finally, the district court erred in holding that the jury could have found secondary indicia of non-obviousness. Where, as here, "the inventions represented no more than the predictable use of prior art elements according to their established functions," weak secondary considerations are inadequate to establish non-obviousness. *W. Union Co. v. Moneygram Payment Sys., Inc.*, 626 F.3d 1361, 1373 (Fed. Cir. 2010) (internal quotation marks omitted). Indeed, the district court relied solely on generic praise not linked to the actual subject matter of the claim and a supposed "long-felt need" (A56-57), but "[w]here the differences between the prior art and the claimed invention are as minimal as they are here, … it cannot be said that any long-felt need was unsolved." *Geo. M. Martin Co. v. Alliance Mach. Sys. Int'l LLC*, 618 F.3d 1294, 1304 (Fed. Cir. 2010). Moreover, to rely on secondary indicia, "the patentee must establish a nexus between the evidence of commercial success and the patented invention." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010). Apple made no effort to establish a nexus between commercial success and the subject matter of claim 8. A12878-80 (Cockburn).

B.   Samsung Is Entitled To JMOL As To The '172 Patent

1.   The District Court Erred In Its Construction Of The Phrase "Keyboard And A Touchscreen Display"

The district court erred in granting summary judgment of infringement of claim 18 of Apple's '172 patent, directed to text correction, because the court erroneously construed the preamble limitation "a keyboard and a touchscreen display" to encompass ***both physical and virtual keyboards***. A161-164. The proper construction requires a physical keyboard in addition to a touchscreen.

Claim 18 requires two elements: a "keyboard ***and*** a touch screen display." A707-08 (emphasis added). "Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct component[s] of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (internal citations omitted); *see also Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004) (similar). Thus, the plain language of claim 18 excludes keyboards that are part of the touchscreen display (*i.e.*, virtual keyboards), rather than separate from it (*i.e.*, physical keyboards). In concluding that a "keyboard" could be touchscreen or physical, the district court erroneously isolated the word "keyboard" out of context from the actual claim language. A162-63. Moreover, the '172 patent's specification confirms that a "physical keyboard," unlike a virtual keyboard, "is not part of the touch screen display." A705. Thus, summary judgment of infringement was improper, and

because the accused devices have no physical keyboard, judgment of non-infringement should be entered for Samsung.

2. Claim 18 Is Invalid As Obvious

The district court also erred in denying JMOL that claim 18 is invalid as obvious over the combination of U.S. Patent No. 7,880,730 ("Robinson") (A20885-929) and International Publication No. WO 2005/008899 ("Xrgomics") (A21000-058). Together, these references disclose every limitation of claim 18.

Claim 18 describes a form of text correction in which a "current character string" is displayed in a "first area" and a "second area" of a touchscreen display. A707-08.

Portable Electronic Device 200

12:35 PM

Take the cae

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218   222   220

224   226   **214**

first area

car   228   **216**   cae

second area

210

Q W E R T Y U I O P { } |
A S D F G H J K L ; " Enter
Z X C V B N M < > ? Shift
Ctrl   Alt   Space   Backspace

227   228

clear   menu   hold
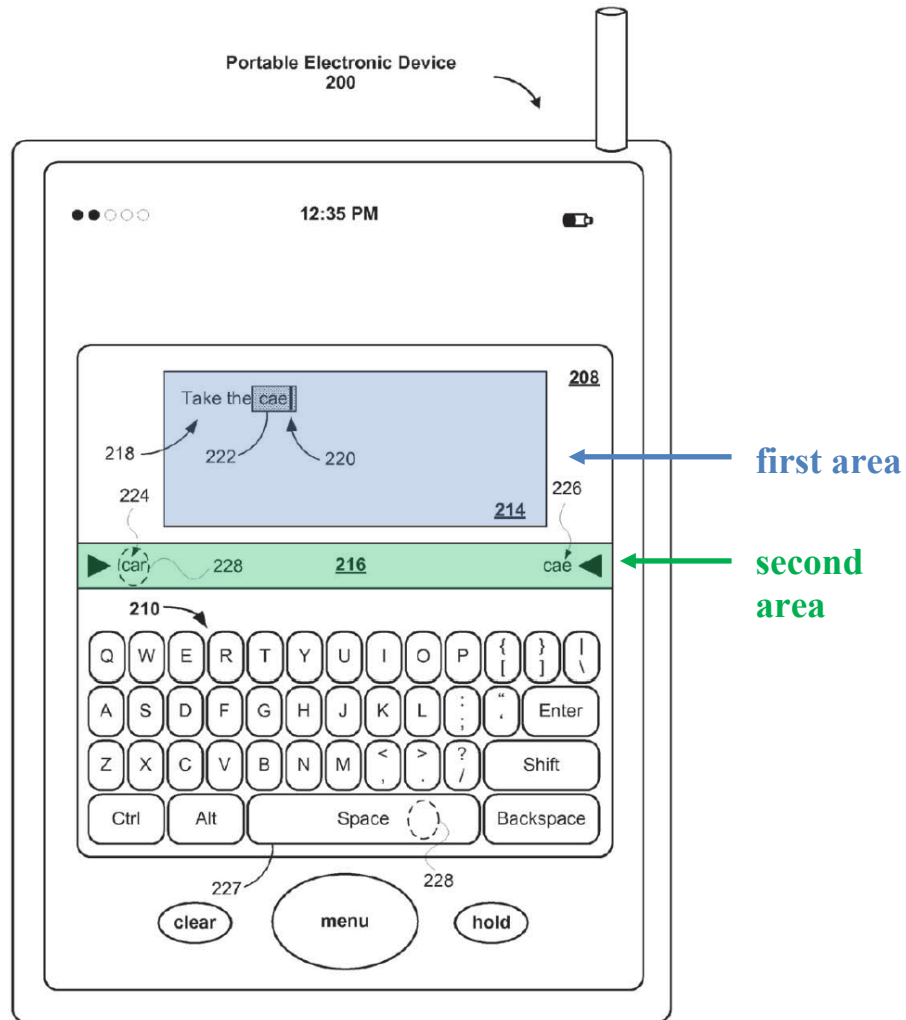
FIG. 4D

A694. Under claim 18, the user has three options: (1) the user can replace the current character string with a suggested replacement string by selecting a delimiter (such as the spacebar); (2) the user can replace the current character string by selecting a replacement character string in the second area; or (3) the user can keep the current character string by selecting it in the second area. A707-08; A12028:15-12031:14 (Wigdor).

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Robinson ("Keyboard system with automatic correction") discloses virtually every aspect of claim 18. A20885-929. Robinson, like the '172 patent, discloses a user interface for text entry.
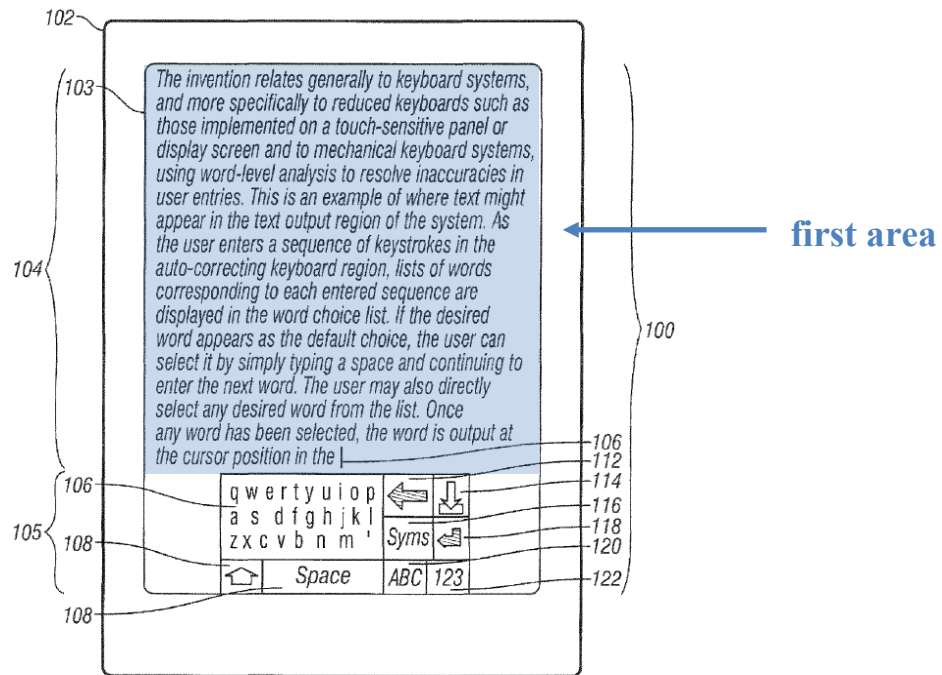
FIG. 1A

A20889. Robinson also discloses a separate area of a touchscreen display with both a current character string and suggested replacement character strings displayed in the separate area:

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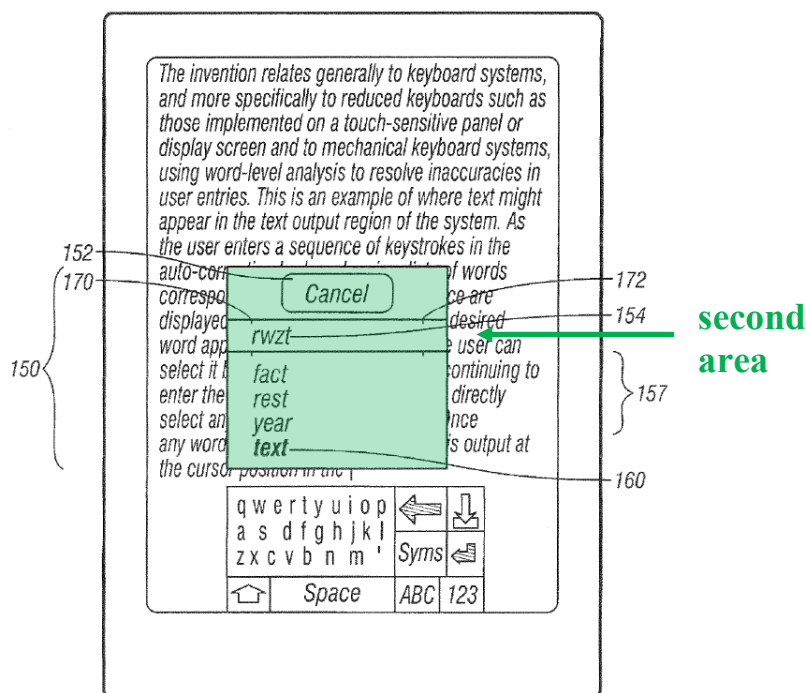
FIG. 1B

A20890; A12027:22-12028:14 (Wigdor).   Furthermore, Robinson discloses all three of the user options recited by claim 18. A12028:15-12031:14 (Wigdor). As a matter of law, and applying a modicum of common sense as allowed by *KSR*, 550 U.S. at 421, the automatic text correction of claim 18 was obvious in 2007. This was confirmed by Samsung's expert at trial. A12032:5-6 (Wigdor).

The only thing Robinson arguably does not disclose is the current character string in the first area. A12031:15-12032:3 (Wigdor). But it would be an insignificant leap for a person of ordinary skill in the art to contemplate Robinson with the current character string displayed in the first area:
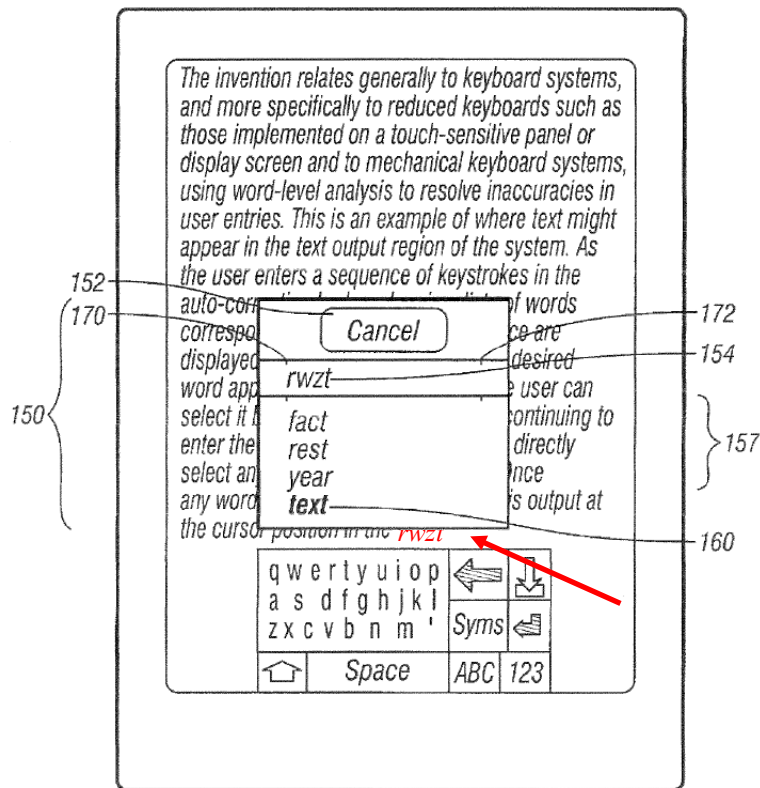
Robinson Fig. 1B, modified by Samsung to display "rwzt" in the text

Indeed, displaying what a user is typing (*i.e.*, the current character string) in the text entry area was a well-known behavior in computers since the 1970s, and numerous examples of that behavior existed. A12025:1-9 (Wigdor). One such example is Xrgomics, which discloses another text correction system in which the touchscreen display includes a first and second area.

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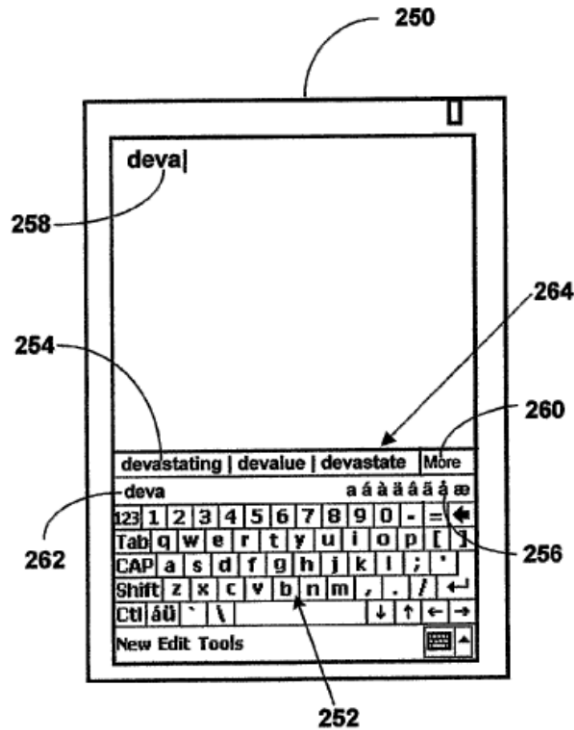
A21051; A12025:25-12026:19 (Wigdor). The first area includes the current character string (here, "deva") and the second area includes suggestions that a user can select to replace the current character string, as well as the current character string itself. A12025:25-12026:19 (Wigdor). Xrgomics thus discloses a current character string in the first area, the only element missing from Robinson's figures. A12026:11-19; A12031:15-12032:6 (Wigdor).

In its decision on Samsung's motion for JMOL (A39-91), the district court erroneously considered each of Robinson and Xrgomics in isolation (A66-69). The district court should have considered the prior art together because Samsung's expert testified that a person of ordinary skill in the art would have been motivated to combine Robinson and Xrgomics (*see* A12027:1-21; A12031:15-12032:6

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(Wigdor)), and there was no evidence to the contrary. The district court also relied

on the testimony of Apple's expert that claim 18 placed the character string in a

different location than did the prior art. A67 (citing A12915-A12916 (Cockburn)).

Looked at in combination, however, the prior art showed that text strings could be

located *anywhere* on the screen. *See* A12031:21-12032:6. Moreover, even if it

were not disclosed by the prior art, this minor difference in the location of a

character string is insufficient to defeat obviousness because it does not represent

any technical advance over the prior art. *See, e.g.*, *PlaSmart, Inc. v. Kappos*, 482

F. App'x 568, 573-74 (Fed. Cir. 2012). Accordingly, JMOL of invalidity for

obviousness should have been granted.[5]

C.   Samsung Is Entitled To JMOL As To The '959 Patent Because Claim 25 Is Invalid As Indefinite And Anticipated

Although the jury found Apple's '959 patent not infringed by Samsung's

products, the district court erred in not granting JMOL that claim 25 was invalid as

indefinite or anticipated.

1.   The Term "Heuristic" Renders Claim 25 Invalid As Indefinite Under *Nautilus*

Apple's '959 patent purports to be an invention for searching for information

on a local device as well as on the Internet—so-called unified search. The claim

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[5]   For the same reasons discussed with respect to the '721 patent (*see supra* at 37), secondary indicia of non-obviousness are likewise inapplicable to the '172 patent.

relies upon "heuristics" to conduct such searches for information without any specification of what those "heuristics" are. The district court labored to define the term, and settled on "rule of thumb that does not consist solely of constraint satisfaction parameters," and Apple's expert at trial said "rule[s] of thumb" were simply "good ideas." Such imprecise concepts are indefinite under 35 U.S.C. § 112, ¶ 2.[6]

The claim, when read in light of the specification and the prosecution history, "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124. The district court failed to address *Nautilus* and simply repeated its reasoning from its summary judgment order, which used the now-disapproved "insolubly ambiguous" indefiniteness standard. A73-74. Because the court's finding of definiteness was based solely on intrinsic evidence, its decision is reviewed *de novo*. *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014).

For claim 25, the intrinsic record provides no objective boundaries. "The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art." *Id.* at 1371. At trial, Apple's own expert described "heuristics" as simply "***good idea[s]***"—an inherently

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[6]   The '959 patent was filed in 1999 and therefore the pre-AIA version of 35 U.S.C. § 112 applies.

subjective standard.   A10941:10-20 (Snoeren) (emphasis added).   Moreover, the two inventors of the '959 patent contradicted one another on whether the exemplary search techniques mentioned in their own patent specification were "heuristics" or not.   A40503:2-5, A40503:11-13, A40504:4-9 (Mortensen); A40509:25-409510:3, A40512:4-8, A40512:10-16 (Arrouye).   The first named inventor of the '959 patent went so far to answer "Who knows" when pressed on whether one example in the '959 patent specification was a "heuristic." A40515:9-22 (Arrouye).   Even taking into account the district court's definition, another person of ordinary skill could not determine what constitutes a "rule of thumb" other than saying "I know it when I see it." A40427:15-22, A40423:21-40424:18, A40431:8-A40432:17 (Oren).   Thus, the term "heuristic" renders claim 25 indefinite.

2.   Claim 25 Is Invalid As Anticipated By WAIS Prior Art

To the extent the claim is definite, claim 25 is anticipated by the WAIS prior art. Apple did not invent searching the Internet and local devices for information, as it asserts. WAIS, an acronym for the "Wide Area Information Server," was an open-source software system developed in the 1990s for being able to search anywhere data was located—whether the data was stored "locally or on the Internet." A20401.   Brewster Kahle, the "father" of WAIS, testified at trial concerning WAIS's ability to search locally and on the internet using heuristics—

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the heart of the alleged novelty of claim 25. A11860:5-11, A11862:1-8; A20001 at

2.0.65\x\qcommands.c, 2.0.65\docs\SF\fwsf.ps; A20533-34; A20584; A20689.

The uncontroverted evidence admitted at trial shows that WAIS searched local and

Internet sources with a single search using a plurality of "heuristics" long before

the priority date of the '959 patent. A20584; *see also* A11854:4-16, A11856:16-

22, A11861:21-25 (Kahle); A11882:7-9 (Pfeifer); A20001; A20401; A20537-564;

A20568-71; A20690-91 (contemporaneous documents expressly describing WAIS

as using "heuristics" and touting its ability to search anywhere information is

located, including both on the user's local hard drive or the Internet).

Samsung's expert Martin Rinard explained at trial how the WAIS prior art

met every limitation of claim 25. That art provided software on a "computer

readable medium for locating information from a plurality of locations containing

program instructions" because it (A20001) includes instructions that locate

information locally and on the Internet. A11919:14-21, A11920:9-21, A11922:6-

16, A11934:5-21.   And it satisfied all the remaining elements of claim 25,

including "provided said information identifier to a plurality of heuristics to locate

information in the plurality of locations which include the Internet and local

storage media." A11923:8-11926:14; A12928:20-A12929:19 (explaining source

code and documentation); A11933:14-11936:20 (demonstrating capabilities of

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WAIS compiled software). Accordingly, this Court should find on de novo review that WAIS anticipated claim 25.

> **D.   Samsung Is Entitled To JMOL As To The '414 Patent Because Claim 20 Is Invalid As Anticipated**

Although the jury found claim 20 of the '414 patent not to be infringed, the district court erred in not granting JMOL of invalidity. The '414 patent purports to be directed to synchronization between a mobile device and desktop computer. Samsung presented clear and convincing, *unrebutted* evidence that Windows Mobile 5 ("WM5") anticipates claim 20.

Samsung's   evidence—which   included   WM5   source   code   and documentation, fact testimony from a WM5 developer, and expert testimony— proved anticipation. Samsung's expert, Dr. Chase, pointed the jury to source code for the IMAP Mail Component and explained that the component was configured to synchronize structured data between a local database and a database residing on an IMAP server. A12203:8-16; A12205:10-13. Dr. Chase further explained that the IMAP Mail component provided a synchronization processing thread (A12263:10-13), and demonstrated using WM5 source code that the IMAP Mail component was configured to synchronize the email data class, while the Contacts Provider and Calendar Provider components were configured to synchronize structured data for email, contacts, and calendar data classes, respectively, between

the local database and a Microsoft Exchange server.   A12202:25-12203:16; A20693; A20997 at 40:22-41:11 (Hall).

By contrast, Apple presented *no* evidence concerning the IMAP Mail component. Apple's expert, Dr. Snoeren, did not even mention the IMAP Mail component, much less refute the source code and testimony presented by Dr. Chase.   Additionally, Dr. Snoeren *admitted* that the Contacts Provider and Calendar Provider components were configured to synchronize structured data for their respective data classes, as required by claim 20. A12859:10-18.

Rather than offer evidence concerning the IMAP Mail component, Apple advanced a legal argument based on claim construction. Dr. Snoeren told the jury that the plain language of claim 20 required *all three* synchronization software components *each* to provide a synchronization processing thread, not simply *one* of three as the plain language of claim 20 requires. A12860:2-A12861:1.

Ruling on JMOL, the district court rejected Apple's argument, finding it "meritless because it contradicts the plain language of claim 20."   A79. Nevertheless, the court pointed to a single line of Apple's expert testimony to conclude that a reasonable jury could have determined *no single* WM5 component provided a synchronization processing thread. A78-79 (quoting A12860:13-17). But that testimony was irrelevant to Samsung's anticipation read. It concerned Dr. Snoeren's opinions that the WM5 Provider components did not provide threads (as

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required by claim 11) and that a fourth component called the "Sync Client" was not class-specific (as required by claim 20). These opinions had nothing to do with Samsung's evidence that the IMAP Mail component was both class-specific and provided a thread, and that the Contacts and Calendar Provider components were class-specific. A reasonable jury would have deemed irrelevant the single line of Dr. Snoeren's testimony the district court relied on, leaving no basis on which to deny JMOL of invalidity.

III.   THE DISTRICT COURT ERRED IN GRANTING APPLE ONGOING ROYALTIES

A.   The District Court Lacked Jurisdiction To Order Ongoing Royalties

"The filing of a notice of appeal is an event of jurisdictional significance—it confers jurisdiction on the court of appeals and divests the district court of its control over those aspects of the case involved in the appeal." *Griggs v. Provident Consumer Discount Co.*, 459 U.S. 56, 58 (1982); *see also Paige v. State of Cal.*, 102 F.3d 1035, 1039 (9th Cir. 1996) (appellate court takes jurisdiction as to "matters inextricably bound up with the injunctive order from which the appeal is taken"). Thus, on August 29, 2014, when Apple filed notice of its interlocutory appeal of the district court's order denying a permanent injunction (A41065), jurisdiction passed to this Court regarding the matters inextricably involved in that appeal. Nonetheless, Apple moved for the equitable remedy of ongoing royalties

on September 3, 2014 (A41068-74), and the district court decided the ongoing

royalties issue on November 25, 2014. A3-38.

That was error because, as prospective equitable relief under § 283, any

grant of ongoing royalties is inextricably bound up with the appeal of the denial of

the permanent injunction.   Ongoing royalties are not damages but a form of

injunctive relief. *See Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1315-16

(Fed. Cir. 2007). Thus, Apple's motion for an ongoing royalty amounted to asking

the district court for alternative relief under § 283 while appealing the denial of its

prior request for a permanent injunction.   There is no precedent to support the

district court's conclusion that, after jurisdiction over the denial of a permanent

injunction had passed to this Court, it nevertheless could consider a separately filed

motion for the further equitable relief of an ongoing royalty.   While the district

court relied (A12-14) on case law holding that a district court may proceed with

the merits when an injunction is on appeal, those cases are inapposite because they

all dealt with a preliminary (not permanent) injunction and because none addressed

whether a second form of equitable relief could be considered while an injunction

was on appeal.

B.   Apple Waived Any Claim To Ongoing Royalties

The district court in any event abused its discretion in holding that Apple

had not waived ongoing royalties despite Apple's failure to request that relief until

after the trial and after the denial and appeal of its motion for permanent injunction. Apple did not mention ongoing royalties in its Amended Complaint (A3044-58); the Joint Amended Pretrial Statement (A40840-42); or at trial. Apple likewise failed to mention an ongoing royalty in its Rule 50(a) motion for judgment as a matter of law (A3089-3100), its Rule 50(b) and 59(e) motions after the verdict (A3140-3193), or its motion for a permanent injunction (A3114-3139).

Apple's failure to mention the relief of an ongoing royalty in the Joint Amended Pretrial Statement (A40840-42) by itself gives rise to waiver as a matter of law. The Ninth Circuit has held that the pretrial order "controls the course of the action unless the court modifies it," and "issues not preserved in the pretrial order have been eliminated from the action.'" *S. Cal. Retail Clerks Union v. Bjorklund*, 728 F.2d 1262, 1264 (9th Cir. 1984). In the Joint Amended Pretrial Statement, Apple provided a lengthy and detailed list of specific relief, but did not mention an ongoing royalty. A40840-42. That omission is dispositive. *See, e.g.*, *Elvis Presley Enters., Inc. v. Capece*, 141 F.3d 188, 206 (5th Cir. 1998) ("EPE's listing of injunctive relief, damages, and attorneys' fees under the Lanham Act in the Joint Pre-Trial Order does not act to preserve its claim for an accounting of profits, and the issue therefore was waived."); *Ramos v. Davis & Geck, Inc.*, 968 F. Supp. 765, 771 (D.P.R. 1997) ("The failure to state the damages that the plaintiff is specifically seeking in the pretrial order waives that claim for relief."), *aff'd*, 167

F.3d 727 (1st Cir. 1999). The district court purports to rely on three awards of ongoing royalties in similar circumstances (A7 n.1), but they are in fact inapposite.[7]

The district court also held that ongoing royalties were "implicitly included" in the pretrial order because Apple requested a "reasonable royalty" (A8 (quoting A40841)), but that request was included only as part of a ***request for "damages"*** (A40841 (emphasis added)). And ongoing royalties are not "damages." *Paice*, 504 F.3d at 1316. Indeed, the fact that neither Apple nor Samsung ever mentioned ongoing royalties until several months after trial belies the idea that the parties believed ongoing royalties were at issue.

Finally, Apple's last-minute request for an ongoing royalty created significant prejudice to Samsung. If Samsung had known that Apple was seeking an ongoing royalty, then Samsung could have advocated for a verdict form that made clear whether the jury was awarding a lump sum or a royalty rate. Because that was unclear in the verdict form, the district court assumed that the jury had

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[7]   In the first case, the plaintiff expressly requested an ongoing royalty in the pretrial order. A41087. In the second case, the pretrial order itself made clear that the contentions could be supplemented and would not provide grounds for waiver. A41124. And in the third case, the plaintiff's one-paragraph contentions were plainly not meant to be comprehensive, and there is nothing in the record to indicate that the proposed pretrial order was actually approved by the judge. A41142, A41150.

awarded a per-unit reasonable royalty. A24. Thus, Apple gained an unfair strategic advantage in waiting until after trial to request an ongoing royalty.

C.   The District Court Erred By Failing To Consider The HTC License In Determining Ongoing Royalty Rates

Even if an ongoing royalty were proper here, this Court should vacate the district court's ruling because the court failed to consider Apple's license to HTC in setting a rate for ongoing royalties.

In deciding ongoing royalty rates, courts generally consider the *Georgia-Pacific* factors, and the district court followed that approach here. A26. The very first factor concerns "[t]he royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty." *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970); *accord LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012). Nonetheless, the court failed to consider Apple's license to HTC (which Samsung raised in its briefing on ongoing royalties (A3219)), presumably because the court had previously excluded the license in its *Daubert* decision. A40705-10.

That approach is erroneous for two reasons. *First*, in deciding the *Daubert* motion, the court considered the standard for admission of expert testimony and the concern about potentially confusing the jury (A40709-10), but neither of these considerations applies to the court's determination of an ongoing royalty rate. *Second*, even if the *Daubert* ruling were dispositive, for the reasons discussed *infra*

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at 64-65, the district court's analysis was erroneous. Consideration of the HTC

license would have shown that the ongoing royalties set by the district court

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███████████████, A38) for the three patents on minor features are grossly

inflated. Based on the district court's rates, ████████████████████████

██. A40881-41022;

A40266; A40276-80. This makes no sense, and this Court should vacate the award

of ongoing royalties for the district court to consider the HTC license in deciding

an appropriate royalty rate.

IV.   THE DISTRICT COURT'S ERRONEOUS CLAIM CONSTRUCTION OF SAMSUNG'S '239 PATENT WARRANTS A NEW TRIAL

A.   The District Court Incorrectly Construed The Term "Means For Transmission Of Said Captured Video Over A Cellular Frequency"

Samsung's '239 patent is directed to a mobile phone with an innovative

apparatus for capturing, compressing and transmitting videos. A710-21. Asserted

claim 15 is written in means-plus-function format pursuant to 35 U.S.C. § 112 ¶ 6.

A720. The district court's denial of JMOL to Samsung on this patent was error

because the district court incorrectly construed the term "means for transmission of

said captured video over a cellular frequency" by requiring a host of software

structure not necessary to perform the stated function. A150.

The district court construed this term as follows: "one or more modems connected to one or more cellular telephones, and software performing a software sequence of initializing one or more communications ports on said apparatus, obtaining a cellular connection, obtaining said captured video, and transmitting said captured video." *Id.* Properly construed, the structure should be "one or more modems connected to one or more cellular telephones or cellular radio transmitters."

1.   The District Court Erred By Including Software Limitations In The Structure

With no dispute as to the function at issue ("transmission of said captured video over a cellular frequency" (A140)), the claim construction task was to identify the structures necessary to perform this transmission function. Although the structures must be "clearly link[ed] or associate[d]" to the recited function, *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997), "a court may not import … structural limitations from the written description that are unnecessary to perform the claimed function." *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001).

The specification of the '239 patent does not require any **software** for transmission, and including such software as necessary structure was error. Instead, the specification discloses **hardware** as the "means for transmission." *See* A718 at 9:25-45 (cellular and radio transmitters as structure for transmission over a

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cellular frequency). Indeed, dependent claim 16 requires the means for transmission to include two hardware components—"at least two interfaces" and "a cellular telephone." A720. The district court included a series of software steps based on the "preferred embodiment" in the specification. A262. Those software structures, however, do not correspond to the "means for transmission," and even if they did, incorporating them into the structure would be in direct conflict with this Court's holding that a district court may not restrict the structure to what "was disclosed in the preferred embodiment, but was not necessary to perform the recited function." *Wenger Mfg.*, 239 F.3d at 1233. Because the proper construction does not require any explicit software, the district court's construction should be reversed.

Even assuming the structure requires *any* software, the district court's construction was not properly restricted to software necessary to perform the claimed function. *See, e.g.*, *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) ("the district court erred … by incorporating structure beyond that necessary to perform the claimed functions"). The district court's construction included "a software sequence of initializing one or more communications ports on said apparatus, obtaining a cellular connection, obtaining said captured video," A150, which is directed not only at "transmission" but also at unclaimed steps of "initializing" and "obtaining." But transmission—the function

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at issue—is only one aspect of communication. A717 at 8:23-30. It was error to include all the other aspects of communication as the structural definition of transmission.

2.   The District Court Erred By Failing To Include "Cellular Radio Transmitters" As Part Of The Structure

Not only did the district court include unnecessary software steps, it excluded the required hardware of "cellular radio transmitters" for performing the transmission function. *See Micro Chem.*, 194 F.3d at 1258-59.

The district court concluded that, because the words "cellular radio transmitter" appear nowhere in the specification, the intrinsic evidence does not support their inclusion. A142. But the specification discloses *radio transmitters* and transmission over *cellular frequencies*, which necessarily include *cellular* radio transmitters. A718 at 9:25-26, 9:40-42. And this Court has recognized that such a corresponding structure may be implicit in the specification. *See Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1380 (Fed. Cir. 1999).[8] It was error for the district court to exclude hardware required for transmission in the relevant structure for "means for transmission."

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[8]   The district court's assertion that Samsung did not include cellular radio transmitters in its construction for claim 1's "means for transmitting" structure is incorrect. A142. Samsung did include "radio frequency transmitters" in its proposed construction of claim 1, but properly restricted the structure to *cellular* radio transmitters for claim 15. A255-56. In any event, the district court should have provided the correct construction for the trial.

B.   Samsung Is Entitled To A New Trial To Remedy The District Court's Erroneous And Prejudicial Claim Construction

A district court's incorrect claim construction requires a new trial where a party "shows that they were prejudiced by the error." *ArcelorMittal France v. AK Steel Corp.*, 700 F.3d 1314, 1325 (Fed. Cir. 2012). The district court's errors clearly prejudiced Samsung because in order to prove infringement, it had to identify a host of unnecessary software steps to meet the relevant claim limitation, all of which Apple contested. A12756-57; A12762-66 (Storer). In addition, because the district court improperly excluded the required hardware for transmission in its definition of relevant structure, Samsung could not point to a cellular radio transmitter in the iPhone to prove infringement of the "means for transmission" claim limitation.

Moreover, there was substantial evidence that Samsung likely would have prevailed under the correct claim construction. A20744-92; A20793-818. In particular, most of Apple's non-infringement arguments involved portions of the claim construction that were incorrect, *e.g.*, lack of port and connection. A12762:9-12764:19; A12756:15-12757:18. Therefore, the verdict should be vacated and the case remanded.

V.   IF THE COURT ORDERS A NEW TRIAL ON APPLE'S DAMAGES, IT SHOULD CORRECT THE DISTRICT COURT'S ERRONEOUS EVIDENTIARY RULINGS

Although the damages awarded to Apple were grossly inflated and disproportionate to the value of the three minor patents at issue here, in order to streamline issues for appeal, Samsung is not challenging the amount of damages awarded to Apple in the event its other challenges to the judgment are rejected. But if this Court were to order any new trial on Apple's claims, Samsung conditionally appeals three evidentiary rulings that improperly prejudiced Samsung's damages defense at trial.

A.   Apple's Conjoint Survey Evidence And Damages Calculations Based On That Evidence Should Be Excluded

More than three-quarters of the total of $2.1 billion in damages that Apple sought in this case depends upon expert analyses of conjoint surveys of smartphone and tablet buyers that purported to measure the value of Apple's patented features. That evidence is inadmissible and should be excluded from any new trial.

Over Samsung's objection (A40720), the district court allowed (A40720-32) Apple's expert Dr. John Hauser to testify about conjoint surveys in which he showed respondents videos illustrating Apple's allegedly patented features, and then asked them to make a series of choices among hypothetical products containing different combinations of features. A11109-19; *see also* A40171,

A40192 ¶ 45, A40207-09 ¶¶ 79-84. Dr. Hauser used the responses to calculate

dollar values for how much consumers were willing to pay for each patented

function ("willingness to pay") and the percentage shift in consumer demand for

Samsung's products that allegedly resulted from its use of Apple's claimed

features in its devices ("willingness to buy"). A11120-28; A21059-108.

The district court also allowed (A40733, A40737), again over Samsung's

objection (A40733), Apple's damages expert Dr. Christopher Vellturo to testify

based on Dr. Hauser's "willingness to buy" figures that Samsung's infringement

cost Apple *$559.6 million* in "diminished demand" lost profits. A11301-05.

Similarly, he was permitted to testify, based on Dr. Hauser's "willingness to buy"

numbers, that Apple had suffered *$1.12 billion* in claimed reasonable-royalty

damages. A11319-23; A11330; A11371-76. The royalty rates resulting from

those calculations were sky-high: *$40.10* per smartphone for five minor feature

patents (A21146) and ▮▮▮▮▮ for just two patents on each Samsung tablet

(A21149).

Both Dr. Hauser's and Dr. Vellturo's testimony should have been excluded

as unreliable under Fed. R. Evid. 702.

First, Dr. Vellturo's damages analysis is unreliable because it depends on

the erroneous assumption that the "willingness to buy" results of a conjoint survey

can be used to accurately calculate changes in market share. Samsung is aware of

no case where a patent plaintiff calculated damages based on the "willingness to buy" results of a conjoint survey. Indeed, the one court that considered a similar methodology excluded it. *Oracle Am., Inc. v. Google Inc.*, 2012 WL 850705, at *10 (N.D. Cal. Mar. 13, 2012), *rev'd on other grounds*, 750 F.3d 1339 (Fed. Cir. 2014). As explained by the president of the firm on whose software Dr. Hauser relied (A40193 at n.27), a conjoint survey "*do[es] not predict market share*" because such a study cannot account for numerous variables that affect real-world market share, such as "differences in awareness developed through advertising and promotion." A40246.

Second, Dr. Hauser's survey design improperly excluded major product features such as brand, battery life, operating system, and a device's overall speed. *See, e.g.*, A11139-40 (Hauser); A12083 (Reibstein). The weight of the evidence (including ███████████████████) confirms both that major features omitted from the conjoint survey were ones on which consumers base their purchasing decisions (*see e.g.*, A12369-70 (Erdem); A20836-84), and that untestable factors like marketing and point-of-sale experience also play a crucial role in sales. A11408; A11413-14; A11418-19 (Velturo); A11682-87 (Pendleton); A12389-90 (Chevalier); A20933; A20819; A20821-26; A20834-35.

The unreliability of Dr. Hauser's study is confirmed by the absurdity of its results. The survey purports to show that consumers would be willing to pay up to

Confidential Material Redacted

$102 each, and more than *$270 in total*, for four minor features of a smartphone whose *total cost was merely $149*. A11181 (Hauser). The "willingness to buy" numbers are likewise facially implausible, predicting declines in sales of up to 26% from the omission of a single patented feature (A21062), and of up to 61% if several were omitted simultaneously (A21069).

B.   Evidence Of Apple's Real-World Licenses And Valuations Of The Patents-In-Suit Should Be Admitted

The district court also abused its discretion in excluding evidence of Apple's own past licenses and valuations of the patents-in-suit. In November 2012, Apple licensed to HTC ███

███. A40881-1022; A40266; A40268; A40276-80; A40288; A40302; A40305-07; A40310; A40313-14.   And in a patent infringement lawsuit against Motorola based on Motorola's use of the Android operating system, Apple took the position that a reasonable royalty for the '647 patent was *$0.60 per unit*—less than *one twentieth* the $12.49 per unit Apple claimed in this case. A11098-103 (Hauser); A40805-07.

This evidence demonstrate that Apple's claimed *$40.10 per unit* royalty rate for just *five* patents was absurd. Yet the district court ruled that Samsung's expert, Dr. Judith Chevalier, could not rely on this evidence in her testimony. A40700-717. The result was to leave the jury to decide damages without any real-world reference point.

In the event of any new trial, Dr. Chevalier should be permitted to rely on the Apple-HTC license as a basis for her opinion because evidence of comparable past licenses is "highly probative as to what constitutes a reasonable royalty for those patent rights." *LaserDynamics*, 694 F.3d at 79. The purported distinctions on which the district court relied do not provide a ground for exclusion because "[p]rior licenses … are almost never perfectly analogous to the infringement action," and thus "the fact that a license is not perfectly analogous generally goes to the weight of the evidence, not its admissibility." *Ericsson, Inc. v. D-Link Sys, Inc.*, 773 F.3d 1201, 1227-28 (Fed. Cir. 2014).

Apple's previous royalty rate calculation for the '647 patent similarly should be admitted as probative evidence of that patent's value. The main difference between Samsung's and Motorola's circumstances—that *Motorola* involved the '647 patent's claim 1 (a broad, *independent* claim), while this case concerns claim 9 (a narrower claim that depends on claim 1)—confirms the relevance of Apple's past position: Apple's assertion here that the ***dependent*** claim is worth ***$12.49 per unit*** cannot be reconciled with its past assertion that the ***independent*** claim is worth ***60 cents per unit***.

C. **Apple's Evidence Of Lost Profits For An Incorrect "Blackout" Period For The '647 Patent Should Be Excluded**

Apple's damages expert Dr. Vellturo was erroneously allowed to submit a report and then testify at trial that Apple should receive lost profits for a "blackout"

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period for the '647 patent that contradicts this Court's holding in *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341 (Fed. Cir. 1999). Samsung moved to strike this evidence but the district court erroneously admitted it. A136.1-A136.8; A11270-71; A11291-99.

Grain Processing requires an inquiry, for damages purposes, that asks "'had the Infringer not infringed, what would the Patent Holder-Licensee have made?'" 185 F.3d at 1350 (quoting *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964)). To determine lost profits "requires a reconstruction of the market" in order to "project economic results that did not occur." *Id*. But "a fair and accurate reconstruction of the 'but for' market must also take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had he not infringed." *Id*. at 1350-51.

Apple's expert testified as to a "but for" world in which Samsung, knowing that its products infringed, supposedly would have pulled its smartphones and tablets off the market, designed around the patents, and reintroduced them—during which time Samsung's market share would have been reallocated to other manufacturers, including Apple. *See* A11291-99. But this testimony was improper as to the '647 patent because, under *Grain Processing*, it is implausible to suppose that Samsung would have released a product it knew infringed, and then lost time in the marketplace replacing it with a non-infringing alternative. *See* 185

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F.3d at 1351 ("The competitor in the 'but for' marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner."). Because, for the '647 patent, Apple provided notice to Samsung a year before Samsung sold its accused product (*see* A11267), it is implausible to suppose that Samsung would deliberately release an infringing product and then suffer a blackout period when it took the infringing product off the market to replace it with a non-infringing alternative. This Court's precedent forecloses such an implausible hypothetical world, and permitting that testimony improperly allowed the jury to confer a windfall on Apple.

Accordingly, any lost-profits testimony by Dr. Vellturo on retrial should be limited to Samsung's rational action in the hypothetical world, which, after notice, would be to develop a design-around before the release of infringing products. Although Samsung is not requesting a retrial on damages, if there is to be any retrial, the district court's error in allowing Apple's expert to testify about a hypothetical blackout period for the '647 patent (A136.1-136.8) should be corrected.

CONCLUSION

The judgment should be reversed or vacated as to Apple's patents, and the judgment should be vacated and remanded for a new trial as to Samsung's '239 patent.

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